

ADY-001B

SEQUENCE LISTING

<110> Brooks, Cydney C.

<120> USE OF INSULIN RESPONSE MODULATORS IN THE  
TREATMENT OF DIABETES AND INSULIN RESISTANCE

<130> ADY-001B

<150> 60/406,618

<151> 2002-08-27

<160> 3

<170> FastSEQ for Windows Version 4.0

<210> 1

<211> 1025

<212> PRT

<213> Homo sapiens

<400> 1

Met Glu Pro Phe Thr Asn Asp Arg Leu Gln Leu Pro Arg Asn Met Ile  
1 5 10 15  
Glu Asn Ser Met Phe Glu Glu Glu Pro Asp Val Val Asp Leu Ala Lys  
20 25 30  
Glu Pro Cys Leu His Pro Leu Glu Pro Asp Glu Val Glu Tyr Glu Pro  
35 40 45  
Arg Gly Ser Arg Leu Leu Val Arg Gly Leu Gly Glu His Glu Met Glu  
50 55 60  
Glu Asp Glu Glu Asp Tyr Glu Ser Ser Ala Lys Leu Leu Gly Met Ser  
65 70 75 80  
Phe Met Asn Arg Ser Ser Gly Leu Arg Asn Ser Ala Thr Gly Tyr Arg  
85 90 95  
Gln Ser Pro Asp Gly Ala Cys Ser Val Pro Ser Ala Arg Thr Met Val  
100 105 110  
Val Cys Ala Phe Val Ile Val Val Ala Val Ser Val Ile Met Val Ile  
115 120 125  
Tyr Leu Leu Pro Arg Cys Thr Phe Thr Lys Glu Gly Cys His Lys Lys  
130 135 140  
Asn Gln Ser Ile Gly Leu Ile Gln Pro Phe Ala Thr Asn Gly Lys Leu  
145 150 155 160  
Phe Pro Trp Ala Gln Ile Arg Leu Pro Thr Ala Val Val Pro Leu Arg  
165 170 175  
Tyr Glu Leu Ser Leu His Pro Asn Leu Thr Ser Met Thr Phe Arg Gly  
180 185 190  
Ser Val Thr Ile Ser Val Gln Ala Leu Gln Val Thr Trp Asn Ile Ile  
195 200 205  
Leu His Ser Thr Gly His Asn Ile Ser Arg Val Thr Phe Met Ser Ala  
210 215 220  
Val Ser Ser Gln Glu Lys Gln Ala Glu Ile Leu Glu Tyr Ala Tyr His  
225 230 235 240  
Gly Gln Ile Ala Ile Val Ala Pro Glu Ala Leu Leu Ala Gly His Asn  
245 250 255  
Tyr Thr Leu Lys Ile Glu Tyr Ser Ala Asn Ile Ser Ser Ser Tyr Tyr  
260 265 270  
Gly Phe Tyr Gly Phe Ser Tyr Thr Asp Glu Ser Asn Glu Lys Lys Tyr

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275	280	285
Phe Ala Ala Thr Gln Phe Glu Pro Leu Ala Ala Arg Ser Ala Phe Pro		
290	295	300
Cys Phe Asp Glu Pro Ala Phe Lys Ala Thr Phe Ile Ile Lys Ile Ile		
305	310	315
Arg Asp Glu Gln Tyr Thr Ala Leu Ser Asn Met Pro Lys Lys Ser Ser		
325	330	335
Val Val Leu Asp Asp Gly Leu Val Gln Asp Glu Phe Ser Glu Ser Val		
340	345	350
Lys Met Ser Thr Tyr Leu Val Ala Phe Ile Val Gly Glu Met Lys Asn		
355	360	365
Leu Ser Gln Asp Val Asn Gly Thr Leu Val Ser Ile Tyr Ala Val Pro		
370	375	380
Glu Lys Ile Gly Gln Val His Tyr Ala Leu Glu Thr Thr Val Lys Leu		
385	390	395
Leu Glu Phe Phe Gln Asn Tyr Phe Glu Ile Gln Tyr Pro Leu Lys Lys		
405	410	415
Leu Asp Leu Val Ala Ile Pro Asp Phe Glu Ala Gly Ala Met Glu Asn		
420	425	430
Trp Gly Leu Leu Thr Phe Arg Glu Glu Thr Leu Leu Tyr Asp Ser Asn		
435	440	445
Thr Ser Ser Met Ala Asp Arg Lys Leu Val Thr Lys Ile Ile Ala His		
450	455	460
Glu Leu Ala His Gln Trp Phe Gly Asn Leu Val Thr Met Lys Trp Trp		
465	470	475
Asn Asp Leu Trp Leu Asn Glu Gly Phe Ala Thr Phe Met Glu Tyr Phe		
485	490	495
Ser Leu Glu Lys Ile Phe Lys Glu Leu Ser Ser Tyr Glu Asp Phe Leu		
500	505	510
Asp Ala Arg Phe Lys Thr Met Lys Lys Asp Ser Leu Asn Ser Ser His		
515	520	525
Pro Ile Ser Ser Ser Val Gln Ser Ser Glu Gln Ile Glu Glu Met Phe		
530	535	540
Asp Ser Leu Ser Tyr Phe Lys Gly Ser Ser Leu Leu Leu Met Leu Lys		
545	550	555
Thr Tyr Leu Ser Glu Asp Val Phe Gln His Ala Val Val Leu Tyr Leu		
565	570	575
His Asn His Ser Tyr Ala Ser Ile Gln Ser Asp Asp Leu Trp Asp Ser		
580	585	590
Phe Asn Glu Val Thr Asn Gln Thr Leu Asp Val Lys Arg Met Met Lys		
595	600	605
Thr Trp Thr Leu Gln Lys Gly Phe Pro Leu Val Thr Val Gln Lys Lys		
610	615	620
Gly Lys Glu Leu Phe Ile Gln Gln Glu Arg Phe Phe Leu Asn Met Lys		
625	630	635
Pro Glu Ile Gln Pro Ser Asp Thr Ser Tyr Leu Trp His Ile Pro Leu		
645	650	655
Ser Tyr Val Thr Glu Gly Arg Asn Tyr Ser Lys Tyr Gln Ser Val Ser		
660	665	670
Leu Leu Asp Lys Lys Ser Gly Val Ile Asn Leu Thr Glu Glu Val Leu		
675	680	685
Trp Val Lys Val Asn Ile Asn Met Asn Gly Tyr Tyr Ile Val His Tyr		
690	695	700
Ala Asp Asp Asp Trp Glu Ala Leu Ile His Gln Leu Lys Ile Asn Pro		
705	710	715
Tyr Val Leu Ser Asp Lys Asp Arg Ala Asn Leu Ile Asn Asn Ile Phe		
725	730	735

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Glu Leu Ala Gly Leu Gly Lys Val Pro Leu Lys Arg Ala Phe Asp Leu  
740 745 750  
Ile Asn Tyr Leu Gly Asn Glu Asn His Thr Ala Pro Ile Thr Glu Ala  
755 760 765  
Leu Phe Gln Thr Asp Leu Ile Tyr Asn Leu Leu Glu Lys Leu Gly Tyr  
770 775 780  
Met Asp Leu Ala Ser Arg Leu Val Thr Arg Val Phe Lys Leu Leu Gln  
785 790 795 800  
Asn Gln Ile Gln Gln Thr Trp Thr Asp Glu Gly Thr Pro Ser Met  
805 810 815  
Arg Glu Leu Arg Ser Ala Leu Leu Glu Phe Ala Cys Thr His Asn Leu  
820 825 830  
Gly Asn Cys Ser Thr Thr Ala Met Lys Leu Phe Asp Asp Trp Met Ala  
835 840 845  
Ser Asn Gly Thr Gln Ser Leu Pro Thr Asp Val Met Thr Thr Val Phe  
850 855 860  
Lys Val Gly Ala Lys Thr Asp Lys Gly Trp Ser Phe Leu Leu Gly Lys  
865 870 875 880  
Tyr Ile Ser Ile Gly Ser Glu Ala Glu Lys Asn Lys Ile Leu Glu Ala  
885 890 895  
Leu Ala Ser Ser Glu Asp Val Arg Lys Leu Tyr Trp Leu Met Lys Ser  
900 905 910  
Ser Leu Asn Gly Asp Asn Phe Arg Thr Gln Lys Leu Ser Phe Ile Ile  
915 920 925  
Arg Thr Val Gly Arg His Phe Pro Gly His Leu Leu Ala Trp Asp Phe  
930 935 940  
Val Lys Glu Asn Trp Asn Lys Leu Val Gln Lys Phe Pro Leu Gly Ser  
945 950 955 960  
Tyr Thr Ile Gln Asn Ile Val Ala Gly Ser Thr Tyr Leu Phe Ser Thr  
965 970 975  
Lys Thr His Leu Ser Glu Val Gln Ala Phe Phe Glu Asn Gln Ser Glu  
980 985 990  
Ala Thr Phe Arg Leu Arg Cys Val Gln Glu Ala Leu Glu Val Ile Gln  
995 1000 1005  
Leu Asn Ile Gln Trp Met Glu Lys Asn Leu Lys Ser Leu Thr Trp Trp  
1010 1015 1020  
Leu  
1025

<210> 2  
<211> 1025  
<212> PRT  
<213> Rattus norvegicus

<400> 2  
Met Glu Thr Phe Thr Asn Asp Arg Leu Gln Leu Pro Arg Asn Met Ile  
1 5 10 15  
Glu Asn Ser Met Phe Glu Glu Glu Pro Asp Val Val Asp Leu Ala Lys  
20 25 30  
Glu Pro Cys Leu His Pro Leu Glu Pro Asp Glu Val Glu Tyr Glu Pro  
35 40 45  
Arg Gly Ser Arg Leu Leu Val Arg Gly Leu Gly Glu His Glu Met Asp  
50 55 60  
Glu Asp Glu Glu Asp Tyr Glu Ser Ser Ala Lys Leu Leu Gly Met Ser  
65 70 75 80  
Phe Met Asn Arg Ser Ser Gly Leu Arg Asn Ser Ala Thr Gly Tyr Arg

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85	90	95
Gln Ser Pro Asp Gly Thr Cys Ser Val Pro Ser Ala Arg Thr Leu Val		
100	105	110
Ile Cys Val Phe Val Ile Val Val Ala Val Ser Val Ile Met Val Ile		
115	120	125
Tyr Leu Leu Pro Arg Cys Thr Phe Thr Lys Glu Gly Cys His Lys Thr		
130	135	140
Asn Gln Ser Ala Glu Leu Ile Gln Pro Ile Ala Thr Asn Gly Lys Val		
145	150	155
Phe Pro Trp Ala Gln Ile Arg Leu Pro Thr Ala Ile Ile Pro Gln Arg		
165	170	175
Tyr Glu Leu Ser Leu His Pro Asn Leu Thr Ser Met Thr Phe Arg Gly		
180	185	190
Ser Val Thr Ile Ser Leu Gln Ala Leu Gln Asp Thr Arg Asp Ile Ile		
195	200	205
Leu His Ser Thr Gly His Asn Ile Ser Ser Val Thr Phe Met Ser Ala		
210	215	220
Val Ser Ser Gln Glu Lys Gln Val Glu Ile Leu Glu Tyr Pro Tyr His		
225	230	235
Glu Gln Ile Ala Val Val Ala Pro Glu Ser Leu Leu Thr Gly His Asn		
245	250	255
Tyr Thr Leu Lys Ile Glu Tyr Ser Ala Asn Ile Ser Asn Ser Tyr Tyr		
260	265	270
Gly Phe Tyr Gly Ile Thr Tyr Thr Asp Lys Ser Asn Glu Lys Lys Asn		
275	280	285
Phe Ala Ala Thr Gln Phe Glu Pro Leu Ala Ala Arg Ser Ala Phe Pro		
290	295	300
Cys Phe Asp Glu Pro Ala Phe Lys Ala Thr Phe Ile Ile Lys Ile Thr		
305	310	315
Arg Asp Glu His His Thr Ala Leu Ser Asn Met Pro Lys Lys Ser Ser		
325	330	335
Val Pro Thr Glu Gly Leu Ile Gln Asp Glu Phe Ser Glu Ser Val		
340	345	350
Lys Met Ser Thr Tyr Leu Val Ala Phe Ile Val Gly Glu Met Arg Asn		
355	360	365
Leu Ser Gln Asp Val Asn Gly Thr Leu Val Ser Val Tyr Ala Val Pro		
370	375	380
Glu Lys Ile Asp Gln Val Tyr His Ala Leu Asp Thr Thr Val Lys Leu		
385	390	395
Leu Glu Phe Tyr Gln Asn Tyr Phe Glu Ile Gln Tyr Pro Leu Lys Lys		
405	410	415
Leu Asp Leu Val Ala Ile Pro Asp Phe Glu Ala Gly Ala Met Glu Asn		
420	425	430
Trp Gly Leu Leu Thr Phe Arg Glu Glu Thr Leu Leu Tyr Asp Asn Ala		
435	440	445
Thr Ser Ser Val Ala Asp Arg Lys Leu Val Thr Lys Ile Ile Ala His		
450	455	460
Glu Leu Ala His Gln Trp Phe Gly Asn Leu Val Thr Met Gln Trp Trp		
465	470	475
Asn Asp Leu Trp Leu Asn Glu Gly Phe Ala Thr Phe Met Glu Tyr Phe		
485	490	495
Ser Val Glu Lys Ile Phe Lys Glu Leu Asn Ser Tyr Glu Asp Phe Leu		
500	505	510
Asp Ala Arg Phe Lys Thr Met Arg Lys Asp Ser Leu Asn Ser Ser His		
515	520	525
Pro Ile Ser Ser Ser Val Gln Ser Ser Glu Gln Ile Glu Glu Met Phe		
530	535	540

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Asp Ser Leu Ser Tyr Phe Lys Gly Ala Ser Leu Leu Leu Met Leu Lys  
545 550 555 560  
Ser Tyr Leu Ser Glu Asp Val Phe Gln His Ala Ile Ile Leu Tyr Leu  
565 570 575  
His Asn His Ser Tyr Ala Ala Ile Gln Ser Asp Asp Leu Trp Asp Ser  
580 585 590  
Phe Asn Glu Val Thr Gly Lys Thr Leu Asp Val Lys Lys Met Met Lys  
595 600 605  
Thr Trp Thr Leu Gln Lys Gly Phe Pro Leu Val Thr Val Gln Arg Lys  
610 615 620  
Gly Thr Glu Leu Leu Leu Gln Gln Glu Arg Phe Phe Pro Ser Met Gln  
625 630 635 640  
Pro Glu Ile Gln Asp Ser Asp Thr Ser His Leu Trp His Ile Pro Ile  
645 650 655  
Ser Tyr Val Thr Asp Gly Arg Asn Tyr Ser Glu Tyr Arg Ser Val Ser  
660 665 670  
Leu Leu Asp Lys Lys Ser Asp Val Ile Asn Leu Thr Glu Gln Val Gln  
675 680 685  
Trp Val Lys Val Asn Thr Asn Met Thr Gly Tyr Tyr Ile Val His Tyr  
690 695 700  
Ala His Asp Gly Trp Ala Ala Leu Ile Asn Gln Leu Lys Arg Asn Pro  
705 710 715 720  
Tyr Val Leu Ser Asp Lys Asp Arg Ala Asn Leu Ile Asn Asn Ile Phe  
725 730 735  
Glu Leu Ala Gly Leu Gly Lys Val Pro Leu Gln Met Ala Phe Asp Leu  
740 745 750  
Ile Asp Tyr Leu Arg Asn Glu Thr His Thr Ala Pro Ile Thr Glu Ala  
755 760 765  
Leu Phe Gln Thr Asp Leu Ile Tyr Asn Leu Leu Glu Lys Leu Gly His  
770 775 780  
Met Asp Leu Ser Ser Arg Leu Val Thr Arg Val His Lys Leu Leu Gln  
785 790 795 800  
Asn Gln Ile Gln Gln Gln Thr Trp Thr Asp Glu Gly Thr Pro Ser Met  
805 810 815  
Arg Glu Leu Arg Ser Ala Leu Leu Glu Phe Ala Cys Ala His Ser Leu  
820 825 830  
Glu Asn Cys Thr Thr Met Ala Thr Lys Leu Phe Asp Gly Trp Met Ala  
835 840 845  
Ser Asn Gly Thr Gln Ser Leu Pro Thr Asp Val Met Thr Thr Val Phe  
850 855 860  
Lys Val Gly Ala Arg Thr Glu Lys Gly Trp Leu Phe Leu Phe Ser Met  
865 870 875 880  
Tyr Ser Ser Met Gly Ser Glu Ala Glu Lys Asp Lys Ile Leu Glu Ala  
885 890 895  
Leu Ala Ser Ser Ala Asp Ala His Lys Leu Tyr Trp Leu Met Lys Ser  
900 905 910  
Ser Leu Asp Gly Asp Ile Ile Arg Thr Gln Lys Leu Ser Leu Ile Ile  
915 920 925  
Arg Thr Val Gly Arg Gln Phe Pro Gly His Leu Leu Ala Trp Asp Phe  
930 935 940  
Val Lys Glu Asn Trp Asn Lys Leu Val His Lys Phe His Leu Gly Ser  
945 950 955 960  
Tyr Thr Ile Gln Ser Ile Val Ala Gly Ser Thr His Leu Phe Ser Thr  
965 970 975  
Lys Thr His Leu Ser Glu Val Gln Glu Phe Phe Glu Asn Gln Ser Glu  
980 985 990  
Ala Thr Leu Gln Leu Arg Cys Val Gln Glu Ala Phe Glu Val Ile Glu

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995	1000	1005
Leu Asn Ile Gln Trp Met Ala Arg Asn Leu Lys Thr Leu Thr Leu Trp		
1010	1015	1020
Leu		
1025		

<210> 3  
<211> 962  
<212> PRT  
<213> Homo sapiens

<400> 3  
Met Asn Phe Leu Arg Gly Val Met Gly Gly Gln Ser Ala Gly Pro Gln  
1 5 10 15  
His Thr Glu Ala Glu Thr Ile Gln Lys Leu Cys Asp Arg Val Ala Ser  
20 25 30  
Ser Thr Leu Leu Asp Asp Arg Arg Asn Ala Val Arg Ala Leu Lys Ser  
35 40 45  
Leu Ser Lys Lys Tyr Arg Leu Glu Val Gly Ile Gln Ala Met Glu His  
50 55 60  
Leu Ile His Val Leu Gln Thr Asp Arg Ser Asp Ser Glu Ile Ile Gly  
65 70 75 80  
Tyr Ala Leu Asp Ile Leu Tyr Asn Ile Ile Ser Asn Glu Glu Glu  
85 90 95  
Glu Val Glu Glu Asn Ser Thr Arg Gln Ser Glu Asp Leu Gly Ser Gln  
100 105 110  
Phe Thr Glu Ile Phe Ile Lys Gln Gln Glu Asn Val Thr Leu Leu Leu  
115 120 125  
Ser Leu Leu Glu Glu Phe Asp Phe His Val Arg Trp Pro Gly Val Lys  
130 135 140  
Leu Leu Thr Ser Leu Leu Lys Gln Leu Gly Pro Gln Val Gln Gln Ile  
145 150 155 160  
Ile Leu Val Ser Pro Met Gly Val Ser Arg Leu Met Asp Leu Ala  
165 170 175  
Asp Ser Arg Glu Val Ile Arg Asn Asp Gly Val Leu Leu Leu Gln Ala  
180 185 190  
Leu Thr Arg Ser Asn Gly Ala Ile Gln Lys Ile Val Ala Phe Glu Asn  
195 200 205  
Ala Phe Glu Arg Leu Leu Asp Ile Ile Ser Glu Glu Gly Asn Ser Asp  
210 215 220  
Gly Gly Ile Val Val Glu Asp Cys Leu Ile Leu Gln Asn Leu Leu  
225 230 235 240  
Lys Asn Asn Asn Ser Asn Gln Asn Phe Phe Lys Glu Gly Ser Tyr Ile  
245 250 255  
Gln Arg Met Lys Pro Trp Phe Glu Val Gly Asp Glu Asn Ser Gly Trp  
260 265 270  
Ser Ala Gln Lys Val Thr Asn Leu His Leu Met Leu Gln Leu Val Arg  
275 280 285  
Val Leu Val Ser Pro Thr Asn Pro Pro Gly Ala Thr Ser Ser Cys Gln  
290 295 300  
Lys Ala Met Phe Gln Cys Gly Leu Leu Gln Gln Leu Cys Thr Ile Leu  
305 310 315 320  
Met Ala Thr Gly Val Pro Ala Asp Ile Leu Thr Glu Thr Ile Asn Thr  
325 330 335  
Val Ser Glu Val Ile Arg Gly Cys Gln Val Asn Gln Asp Tyr Phe Ala  
340 345 350

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Ser Val Asn Ala Pro Ser Asn Pro Pro Arg Pro Ala Ile Val Val Leu  
355 360 365  
Leu Met Ser Met Val Asn Glu Arg Gln Pro Phe Val Leu Arg Cys Ala  
370 375 380  
Val Leu Tyr Cys Phe Gln Cys Phe Leu Tyr Lys Asn Gln Lys Gly Gln  
385 390 395 400  
Gly Glu Ile Val Ser Thr Leu Leu Pro Ser Thr Ile Asp Ala Thr Gly  
405 410 415  
Asn Ser Val Ser Ala Gly Gln Leu Leu Cys Gly Gly Leu Phe Ser Thr  
420 425 430  
Asp Ser Leu Ser Asn Trp Cys Ala Ala Val Ala Leu Ala His Ala Leu  
435 440 445  
Gln Glu Asn Ala Thr Gln Lys Glu Gln Leu Leu Arg Val Gln Leu Ala  
450 455 460  
Thr Ser Ile Gly Asn Pro Pro Val Ser Leu Leu Gln Gln Cys Thr Asn  
465 470 475 480  
Ile Leu Ser Gln Gly Ser Lys Ile Gln Thr Arg Val Gly Leu Leu Met  
485 490 495  
Leu Leu Cys Thr Trp Leu Ser Asn Cys Pro Ile Ala Val Thr His Phe  
500 505 510  
Leu His Asn Ser Ala Asn Val Pro Phe Leu Thr Gly Gln Ile Ala Glu  
515 520 525  
Asn Leu Gly Glu Glu Gln Leu Val Gln Gly Leu Cys Ala Leu Leu  
530 535 540  
Leu Gly Ile Ser Ile Tyr Phe Asn Asp Asn Ser Leu Glu Ser Tyr Met  
545 550 555 560  
Lys Glu Lys Leu Lys Gln Leu Ile Glu Lys Arg Ile Gly Lys Glu Asn  
565 570 575  
Phe Ile Glu Lys Leu Gly Phe Ile Ser Lys His Glu Leu Tyr Ser Arg  
580 585 590  
Ala Ser Gln Lys Pro Gln Pro Asn Phe Pro Ser Pro Glu Tyr Met Ile  
595 600 605  
Phe Asp His Glu Phe Thr Lys Leu Val Lys Glu Leu Glu Gly Val Ile  
610 615 620  
Thr Lys Ala Ile Tyr Lys Ser Ser Glu Glu Asp Lys Lys Glu Glu Glu  
625 630 635 640  
Val Lys Lys Thr Leu Glu Gln His Asp Asn Ile Val Thr His Tyr Lys  
645 650 655  
Asn Met Ile Arg Glu Gln Asp Leu Gln Leu Glu Glu Leu Arg Gln Gln  
660 665 670  
Val Ser Thr Leu Lys Cys Gln Asn Glu Gln Leu Gln Thr Ala Val Thr  
675 680 685  
Gln Gln Val Ser Gln Ile Gln Gln His Lys Asp Gln Tyr Asn Leu Leu  
690 695 700  
Lys Ile Gln Leu Gly Lys Asp Asn Gln His Gln Gly Ser Tyr Ser Glu  
705 710 715 720  
Gly Ala Gln Met Asn Gly Ile Gln Pro Glu Glu Ile Gly Arg Leu Arg  
725 730 735  
Glu Glu Ile Glu Glu Leu Lys Arg Asn Gln Glu Leu Leu Gln Ser Gln  
740 745 750  
Leu Thr Glu Lys Asp Ser Met Ile Glu Asn Met Lys Ser Ser Gln Thr  
755 760 765  
Ser Gly Thr Asn Glu Gln Ser Ser Ala Ile Val Ser Ala Arg Asp Ser  
770 775 780  
Glu Gln Val Ala Glu Leu Lys Gln Glu Leu Ala Thr Leu Lys Ser Gln  
785 790 795 800  
Leu Asn Ser Gln Ser Val Glu Ile Thr Lys Leu Gln Thr Glu Lys Gln

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805	810	815													
Glu	Leu	Leu	Gln	Lys	Thr	Glu	Ala	Phe	Ala	Lys	Ser	Val	Glu	Val	Gln
820						825								830	
Gly	Glu	Thr	Glu	Thr	Ile	Ile	Ala	Thr	Lys	Thr	Thr	Asp	Val	Glu	Gly
835							840							845	
Arg	Leu	Ser	Ala	Leu	Leu	Gln	Glu	Thr	Lys	Glu	Leu	Lys	Asn	Glu	Ile
850							855							860	
Lys	Ala	Leu	Ser	Glu	Glu	Arg	Thr	Ala	Ile	Lys	Glu	Gln	Leu	Asp	Ser
865							870							880	
Ser	Asn	Ser	Thr	Ile	Ala	Ile	Leu	Gln	Thr	Glu	Lys	Asp	Lys	Leu	Glu
								885						895	
Leu	Glu	Ile	Thr	Asp	Ser	Lys	Glu	Gln	Asp	Asp	Leu	Leu	Val	Leu	
								900						910	
Leu	Ala	Asp	Gln	Asp	Gln	Lys	Ile	Leu	Ser	Leu	Lys	Asn	Lys	Leu	Lys
							915							925	
Asp	Leu	Gly	His	Pro	Val	Glu	Glu	Glu	Asp	Glu	Leu	Glu	Ser	Gly	Asp
							930							940	
Gln	Glu	Asp	Glu	Asp	Asp	Glu	Ser	Glu	Asp	Pro	Gly	Lys	Asp	Leu	Asp
							945							955	
His	Ile							950							960